

Application Serial No: 09/808,973  
In reply to Office Action of 8 April 2004

Attorney Docket No. 79485

AMENDMENTS TO THE CLAIMS

1. (currently amended): An apparatus for remotely and automatically adjusting the a volume of a remotely controlled audio device, comprising:

a sensor circuit for detecting audio signals generated by the audio device and generating a signal representative of an amplitude of the detected audio signal;

means for obtaining a reference audio signal amplitude from a user;

a difference circuit for determining a difference between an amplitude of the signal outputted by the sensor circuit and the reference audio signal amplitude and for generating a difference signal that represents this difference; and

a control circuit for generating a control signal that effects at least one of attenuation, augmentation and maintenance of the amplitude of the audio signals generated by the audio device in accordance with the difference signal; and

Application Serial No: 09/808,973  
In reply to Office Action of 8 April 2004

Attorney Docket No. 79485

a difference signal transfer circuit that transfers the  
difference signal to the control circuit when the  
sensor circuit detects an audio signal.

2. (previously presented): The apparatus according to claim 1 wherein the sensor circuit further comprises an amplifier for amplifying the detected audio signal before it is outputted to the difference circuit.

3. (original): The apparatus according to claim 1 wherein the sensor circuit comprises a directional microphone for detecting audio signals outputted by the device.

4. (previously presented): The apparatus according to claim 1 wherein the means for obtaining a reference audio signal amplitude provides the audio signal amplitude in digital form, and the difference circuit further comprises an analog-to-digital-converter for converting the detected audio signal amplitude into digital data.

5. (canceled)

Application Serial No: 09/808,973  
In reply to Office Action of 8 April 2004

Attorney Docket No. 79485

6. (currently amended): The apparatus according to claim [[5]]  
1 wherein the difference signal transfer circuit comprises a  
sound activation circuit.

7. (original): The apparatus according to claim 1 wherein the  
control signal effects attenuation of the amplitude of the audio  
signals generated by the audio device when the amplitude of the  
sensor circuit output signal exceeds the reference audio signal  
amplitude by a predetermined magnitude.

8. (original): The apparatus according to claim 1 wherein the  
control signal effects augmentation of the amplitude of the  
audio signals generated by the audio device when the reference  
audio signal amplitude exceeds the amplitude of the sensor  
circuit output signal by a predetermined magnitude.

9. (original): The apparatus according to claim 1 wherein the  
control signal effects maintenance of the amplitude of the audio  
signals generated by the audio device when the amplitude of the  
sensor circuit output signal is generally the same as the  
reference audio signal amplitude.

10. (original): The apparatus according to claim 1 wherein the  
control circuit comprises a transmitter circuit for transmitting

Application Serial No: 09/808,973  
In reply to Office Action of 8 April 2004

Attorney Docket No. 79485

the control signal to a control signal receiver of the audio device.

11. (original): The apparatus according to claim 1 further comprising a switch that permits a user to activate or deactivate the apparatus.

12. (original): The apparatus according to claim 1 further comprising a sound activation circuit that transfers the difference signal to the control circuit when the sensor circuit detects an audio signal.

13. (currently amended): An apparatus for remotely and automatically adjusting the a volume of a remotely controlled audio device, comprising:

a directional microphone for detecting audio signals generated by the audio device and generating a signal representative of an amplitude of the detected audio signal;

obtaining a reference audio signal amplitude from a user;

a difference circuit for determining a difference between an amplitude of the signal outputted by the

Application Serial No: 09/808,973  
In reply to Office Action of 8 April 2004

Attorney Docket No. 79485

directional microphone and the reference audio signal amplitude and for generating a difference signal that represents this difference;

a control circuit for generating a control signal that effects at least one of attenuation, augmentation and maintenance of the amplitude of the audio signals generated by the audio device in accordance with the difference signal; and

a sound activation circuit for transferring the difference signal to the control circuit when the directional microphone detects an audio signal.

14. (currently amended): A method for remotely and automatically adjusting ~~the~~ a volume of a remotely controlled audio device, comprising:

detecting an audio signal generated by the audio device;

generating a detected audio amplitude signal representative of an amplitude of the detected audio signal;

Application Serial No: 09/808,973  
In reply to Office Action of 8 April 2004

Attorney Docket No. 79485

obtaining a reference audio signal amplitude from a user;

determining a difference signal as the difference between  
the detected audio amplitude signal and the reference  
audio signal amplitude; and

generating a control signal by means of a control circuit  
that ~~adjusts the volume~~ effects at least one of  
attenuation, augmentation and maintenance of the  
amplitude of the audio signals ~~outputted~~ generated by  
the audio device in accordance with the difference  
signal if the detected audio amplitude varies greater  
than a predetermined amount from the reference audio  
signal amplitude; and

transferring the difference signal to the control circuit  
by means of a difference signal transfer circuit when  
an audio signal is detected.

15. (previously presented): The method according to claim 14  
further comprising amplifying the detected audio amplitude  
signal.

Application Serial No: 09/808,973  
In reply to Office Action of 8 April 2004

Attorney Docket No. 79485

17. (previously presented): The method according to claim 14 further comprising converting the detected audio amplitude signal into digital audio amplitude signal.

18. (previously presented): The method according to claim 17 wherein

the step of obtaining comprises obtaining a digital reference audio signal amplitude; and

the step of determining further includes comparing the digital audio amplitude signal and the digital reference audio signal amplitude.

19. (original): The method according to claim 14 further including transmitting the control signal to a control signal receiver of the audio device.

20. (previously presented): The method according to claim 14 wherein generating the control signal comprises generating a control signal that reduces the volume of the audio signals generated by the audio device when the detected audio amplitude signal exceeds the reference audio signal amplitude by a predetermined magnitude.

Application Serial No: 09/808,973  
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Attorney Docket No. 79485

21. (previously presented): The method according to claim 14 wherein generating the control signal comprises generating a control signal that increases the volume of the audio signals generated by the audio device when the reference audio signal amplitude exceeds the detected audio amplitude signal by a predetermined magnitude.

22. (previously presented): The method according to claim 14 wherein generating the control signal comprises generating a control signal that maintains the volume of the audio signals generated by the audio device when the detected audio amplitude signal is within a predetermined magnitude of the reference audio signal amplitude.

23. (original): The method according to claim 14 wherein detecting the audio signal comprises:

providing an acoustic signal sensor; and

positioning the sensor so as to facilitate reception of the audio signals generated by the audio device.